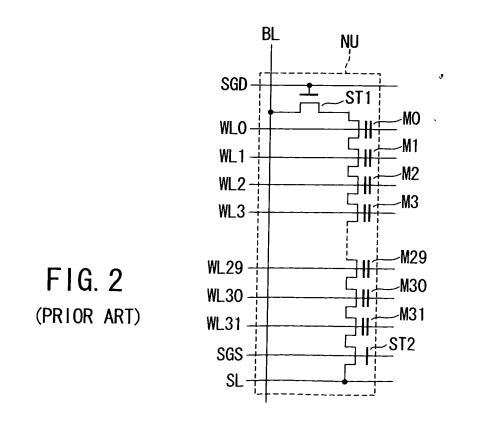
(Column Memory cell array number) 511 512 527 Block 0 Page 0 Data area(512 Bites) Redundancy area(16 Bites) Page 1 Page 31 NU-Block 1 Page 0 Page Page 31 Block X Page 0 **Page** Page 31

FIG. 1 (PRIOR ART)



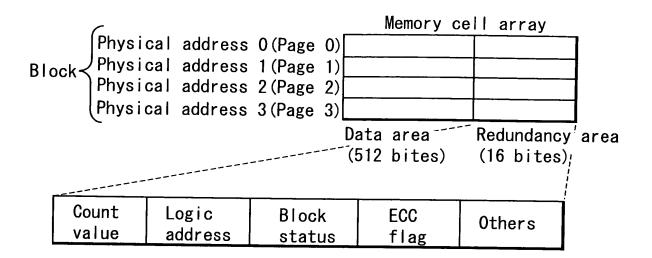


FIG. 3

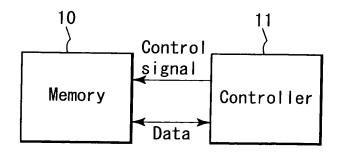


FIG. 4

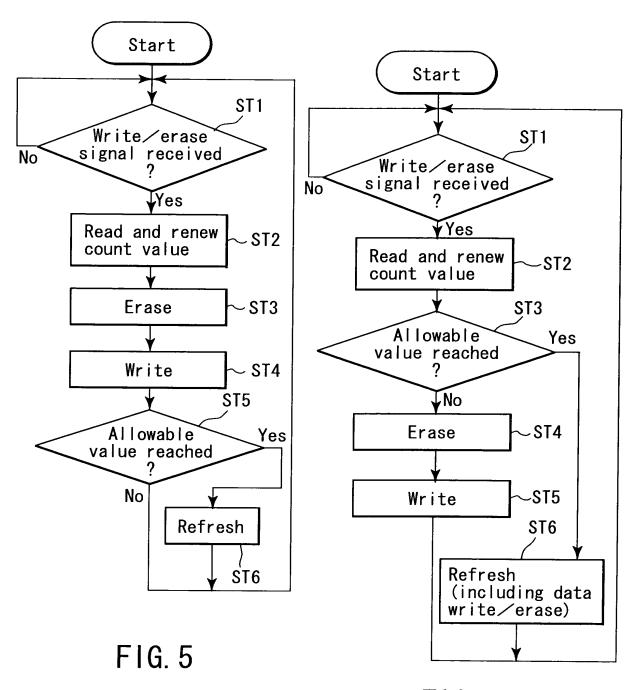
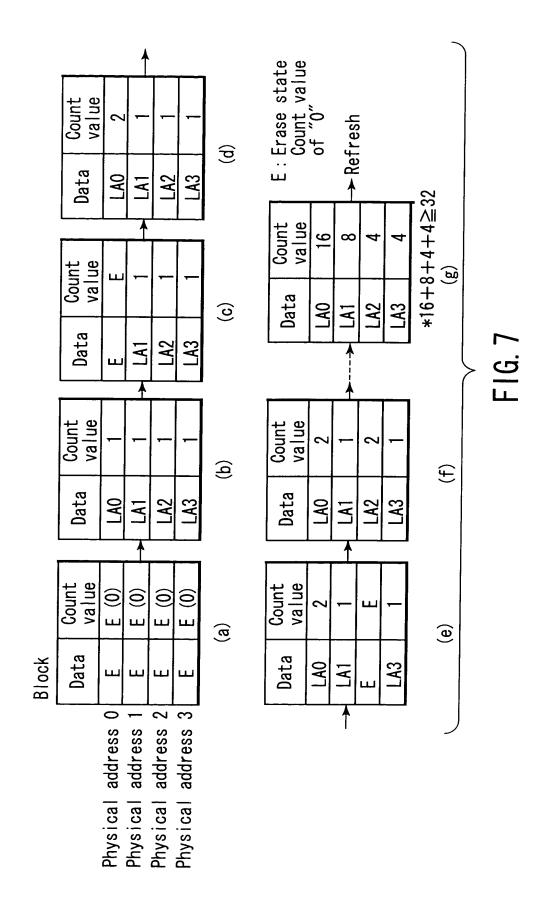
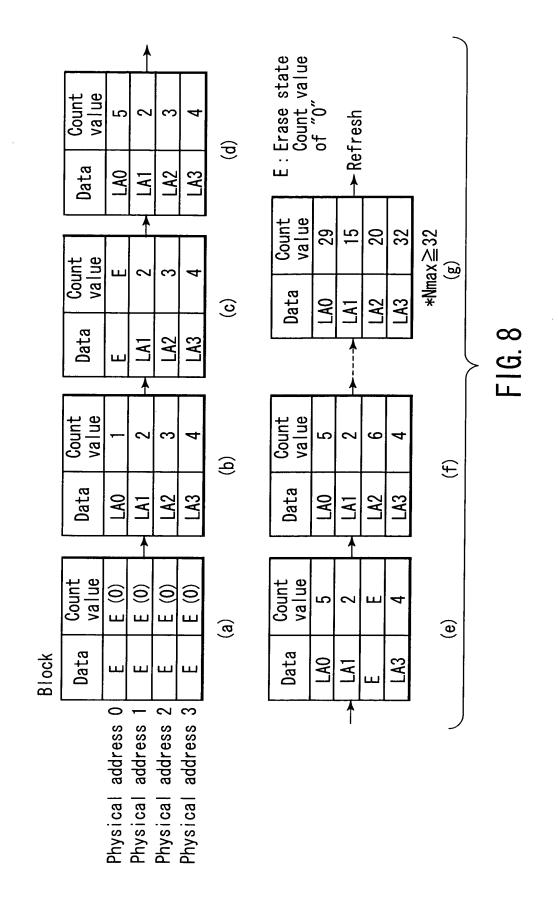


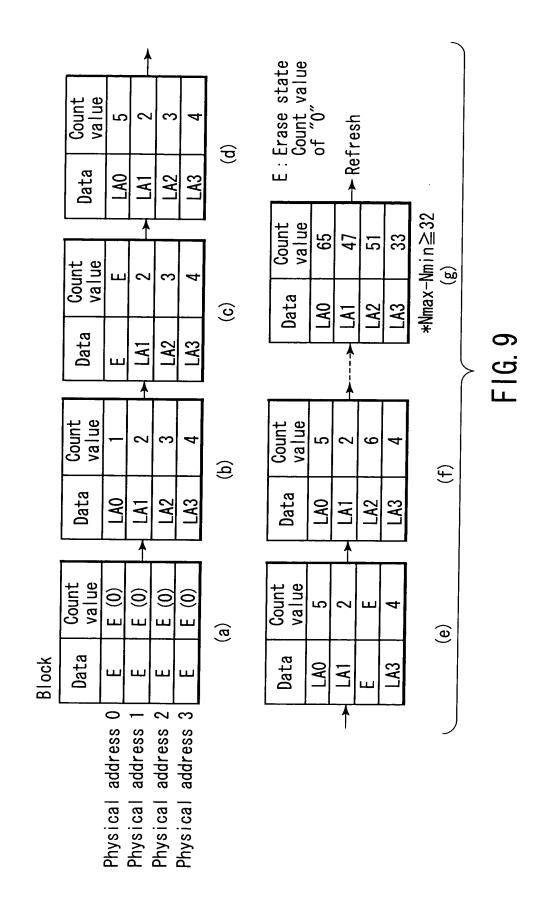
FIG. 6

OBLON, SPIVAK, ET AL DOCKET #: 240486US2S INV: Yoshiyuki TANAKA SHEET 4 OF 20



OBLON, SPIVAK, ET AL DOCKET #: 240486US2S INV: Yoshiyuki TANAKA SHEET 5_OF 20_





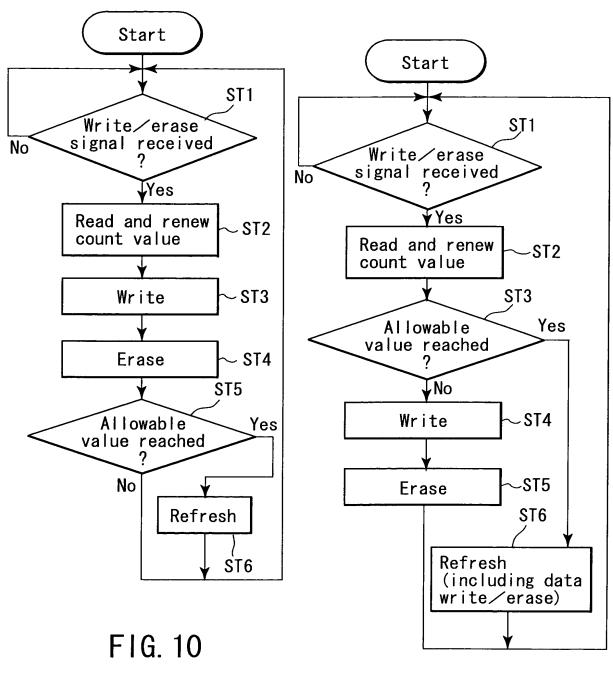
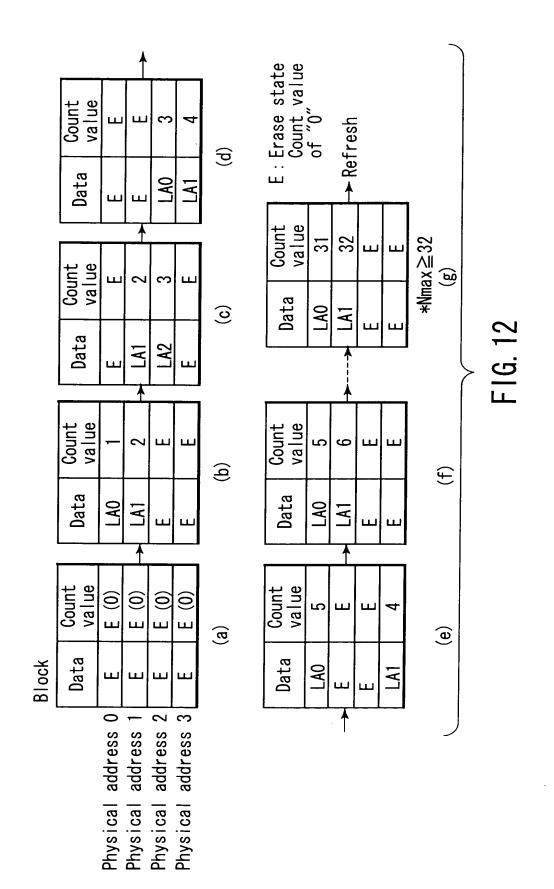


FIG. 11

OBLON, SPIVAK, ET AL DOCKET #: 240486US2S INV: Yoshiyuki TANAKA SHEET <u>8</u> OF <u>20</u>



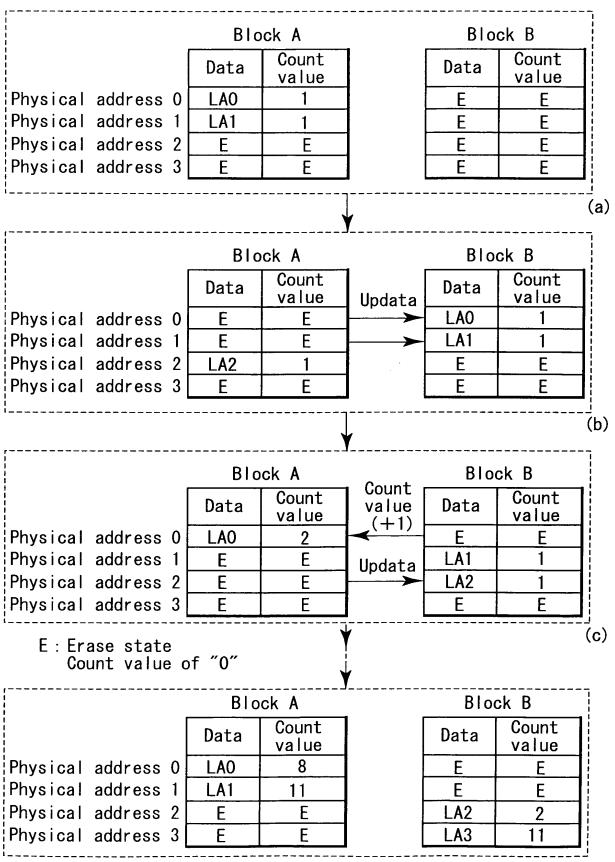


FIG. 13

 $8+11+2+11 \ge 32$

(d)

Block A

Data	Count value
LA0	1
-	-
-	-
_	

(a)

Count value
1
_
_
<u> </u>

Buffer block

Data	Count value
LA0	1
_	_
_	_
_	_



Data	Count value
E	E
_	_
_	_
_	_

(c)

(b)

Data	Count value
LA0	1
_	-
-	_
_	_

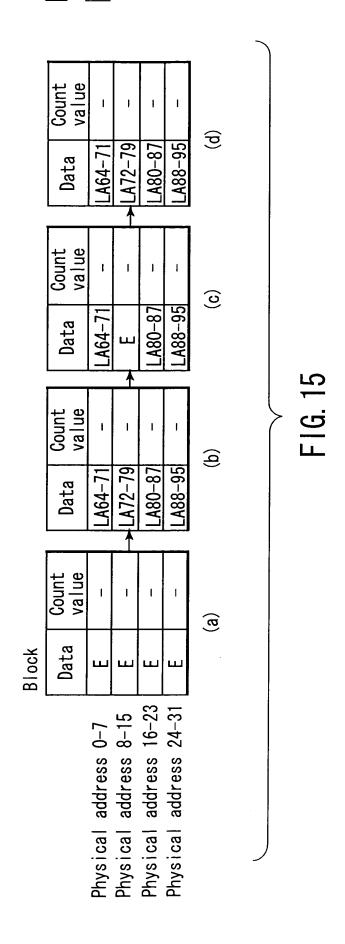


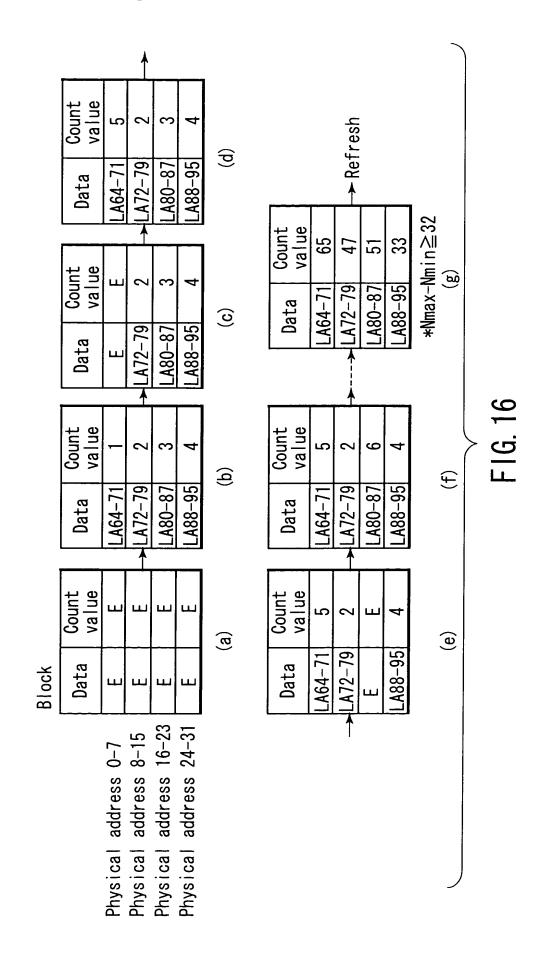
Data	Count value
LAO	2
_	_
_	_
_	_

(d)

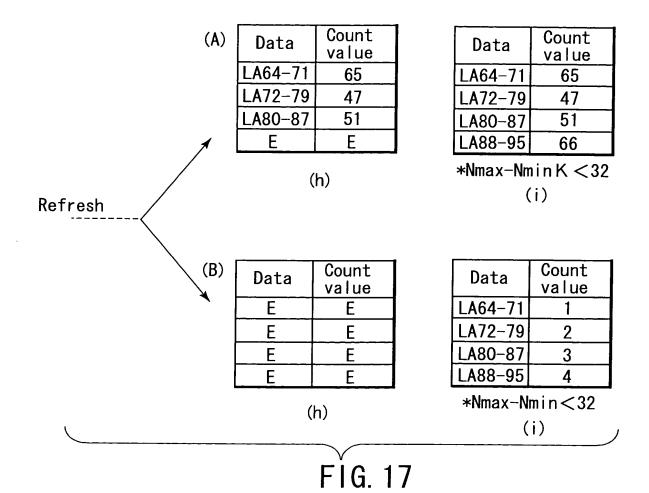
Data	Count value
E	E
_	_
-	_
	_

FIĞ. 14





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Buffer block Block A Count Count Data Data value value Physical address 0-7 LA64-71 E Ε 2 Physical address 8-15 LA72-79 Ε E 3 Physical address 16-23 LA80-87 E E Physical address 24-31 LA88-95 4 Ε F (a) Count Count Data Data value value LA64-71 LA64-71 1 5 LA72-79 2 Ε E 3 E E LA80-87 LA88-95 4 E E $\frac{\Lambda}{\Gamma}$ (b) Count Count Data Data value value E E LA64-71 5 LA72-79 2 Ε E 3 Ε LA80-87 E 4 LA88-95 Ε Ε $\frac{\Lambda}{\Gamma}$ (c) Count Count Data Data value value LA64-71 5 LA64-71 5 LA72-79 2 E E LA80-87 3 E Ε 4 A88-95 F F (d) $\frac{\Lambda}{\Lambda}$ Count Count Data Data value value 5 E Ε LA64-71 2 LA72-79 Ε E .A80-87 3 E Ε LA88-95 4 E Ε

FIG. 18

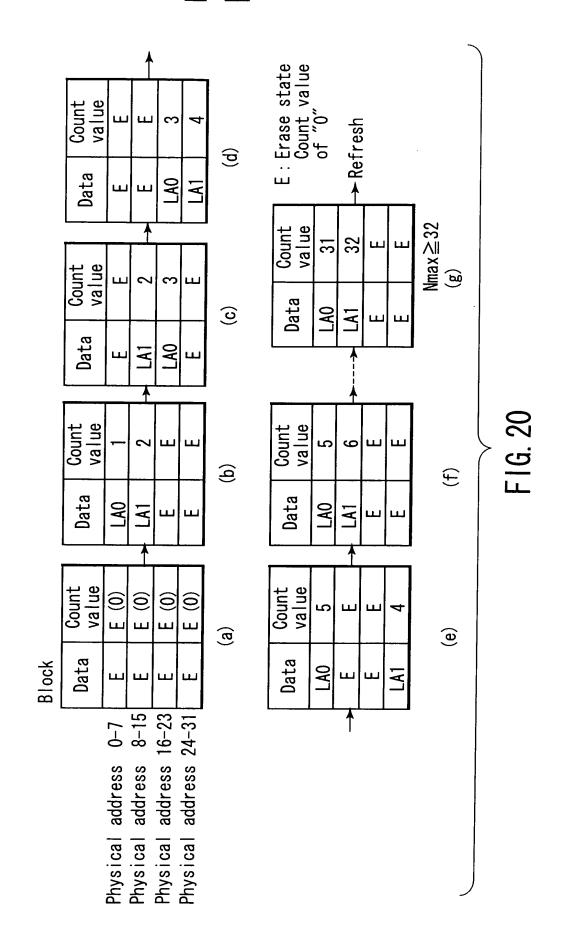
(e)

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Block A Buffer block Count Count Data Data value value Physical address 0-7 LA64-71 65 E Ε Physical address 8-15 LA72-79 47 E Ε Physical address 16-23 LA80-87 Ε 51 E Physical address 24-31 LA88-95 33 E Ε Nmax-Nmin≥32 ∏ Refresh (f) Count Count Data Data value value LA64-71 65 Ε Ε LA72-79 47 Ε Ε LA80-87 51 E E Ε Ε LA88-95 66 (g) Count Count Data Data value value LA64-71 Ε 65 Ε LA72-79 47 Ε Ε LA80-87 Ε 51 Ε LA88-95 66 Ε Ε Nmax-Nmin < 32(h)

FIG. 19

OBLON, SPIVAK, ET AL DOCKET #: 240486US2S INV: Yoshiyuki TANAKA SHEET <u>16</u> OF <u>20</u>



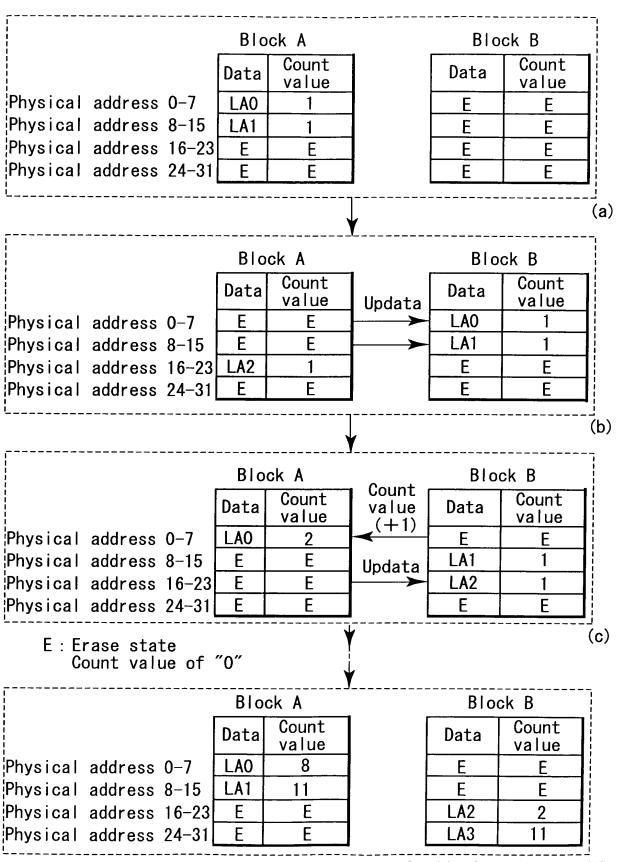


FIG. 21

 $8+11+2+11 \ge 32$ (d)

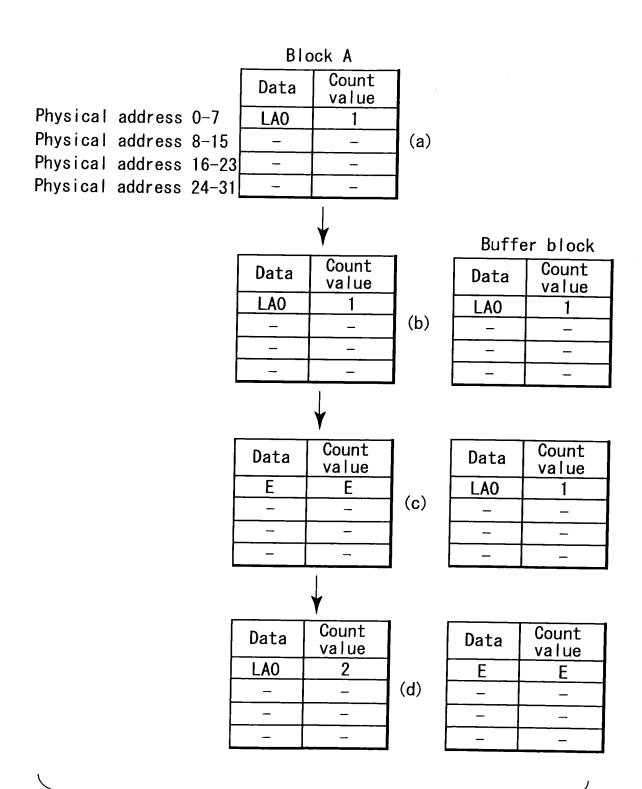
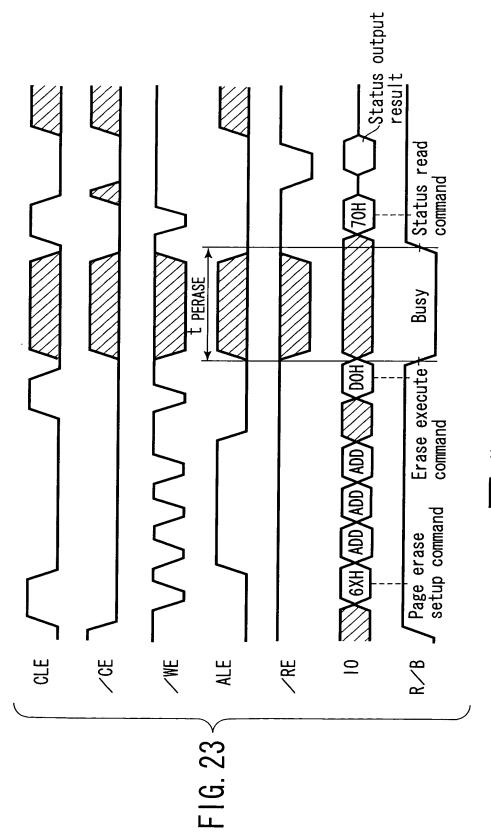


FIG. 22



S : VIH or VIL

